

ABSTRACT OF THE DISCLOSURE

An electronic controller is used to control a vacuum gauge in a vacuum system. The electronic controller may be coupled to a vacuum pump in the vacuum system.

5 Preferably, the vacuum pump is a cryopump. The electronic controller determines whether there is a potentially dangerous condition present in the vacuum system. A potentially dangerous condition may be present, for example, if there is a sufficient amount of gas in the vacuum pump to ignite. If the vacuum pump is filled with inert gas, such as nitrogen, then the potentially dangerous condition is not present. The

10 potentially dangerous condition is present when the temperature of the vacuum pump is above a temperature setpoint, such as 20K. The electronic controller responds to a potentially dangerous condition by preventing the vacuum gauge from being turned on.